GRID DESCRIPTION
CTV III

Model Domain

A static geological model developed with Schlumberger's Petrel software, commonly used in the petroleum industry for exploration and production, is the computational modeling input. It allows the user to incorporate seismic and well data to build reservoir models and visualize reservoir simulation results. Model domain information is summarized in **Table 1**.

Table 1. Model domain information.

Coordinate System	State Plane		
HorizontalDatum	North American Datum (NAD) 27		
Coordinate System Units	Feet		
Zone	Zone 2		
FIPSZONE	[redacted]	**ADSZONE**	[redacted]
Coordinate of X min	[redacted]	**Coordinate of X max**	[redacted]
Coordinate of Y min	[redacted]	**Coordinate of Y max**	[redacted]
Elevation of bottom of domain	[redacted]	**Elevation of top of domain**	[redacted]

A Tartan grid with varying cell XY dimensions [redacted] the model domain as shown in **Figure 2**. [redacted] In the CO_2 plume area, the grid cells are predominantly 500'x500' but some cells are as small as 50'x50' in the region immediately around the planned injectors. The grid cell size increases with greater distance away from the main injection area, where cells up to 1000'x1000' cover the areas of the model that are furthest from the injectors.

As illustrated in **Figure 2**, [redacted].

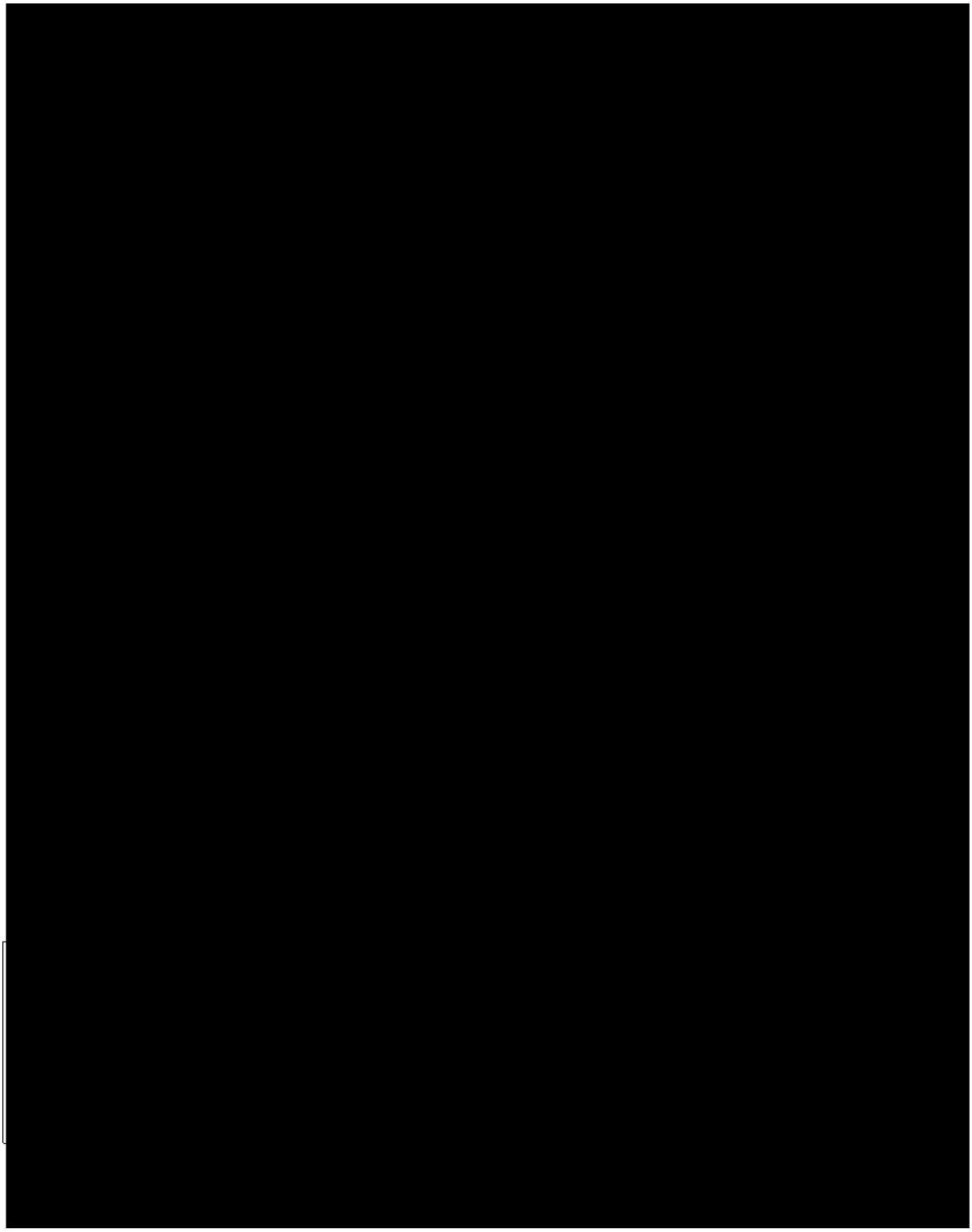

Figure 2. Plan view of the model boundary and geo-cellular grid used to define the CO_2 plume extent and associated AoR.

A constant vertical cell height of 20 feet was utilized over the model domain to generate grid layers within the model as shown in **Figure 3**. The 20-foot cell height provides the vertical resolution necessary to capture significant lithologic heterogeneity (sand versus shale) which helps to ensure accurate upscaling of log data and distribution of reservoir properties in the static model. **Figure 4** shows a comparison of open-hole log data and the associated upscaled logs for a well within the AoR.